



Facilities & Planning
307 Showalter Hall
Cheney, WA 99004-2445

Cheney • Spokane

December 1, 2010

Department of Ecology
Cashiering Section
PO Box 47611
Olympia, WA 98504-7611

RECEIVED
DEC 08 2010
DEPARTMENT OF ECOLOGY
EASTERN REGIONAL OFFICE

Re: Water Right Application for Eastern Washington University – Request to Initiate a Cost Reimbursement Agreement

Dear Water Resources Staff:

Enclosed you will find our *Application for Water Right Permit*. We request that this application be processed through a Cost-Reimbursement Agreement and understand that no filing fees are required.

Background

The intent of this application is to obtain a water-right permit for an open-loop geothermal heating and cooling system at our Cheney campus. We are excited to implement this environmentally friendly, highly efficient heating and cooling system on campus and look forward to working cooperatively with the Department of Ecology.

Our system will be designed to be completely non-consumptive and will not impact the management of water in the area, or other water users. Our supply system will target water from the Grand Ronde aquifer from a series of four to eight extraction wells that will be completed at depths of about 300 to 800 feet. All water will be re-injected into the same aquifer using a series of injection wells that will be located within the same quarter-quarter section designation as are the extraction wells. The water use will be “non-contact,” and chemicals will not be added, so no degradation to water quality will occur.

Our application is water-budget neutral and will not diminish the water availability to either current or future water users. The only change to the water will be its temperature.

Because the campus is large, we anticipate installing multiple coupled extraction\injection wells at key locations. This system will not be intertied with the existing Group A water system that supplies domestic water to our population.

Cost Reimbursement Request

Please consider this letter as our request to initiate a **Cost Reimbursement Agreement (CRA)** pursuant to RCW 90.03.265. We understand that a cost-reimbursement agreement may be initiated under this section if the applicant agrees to pay for the cost of processing their application. Because our proposed use of water will be completely water budget neutral and will not impair other water users, we understand that we will not need to pay for the processing of other pending applications under a CRA.

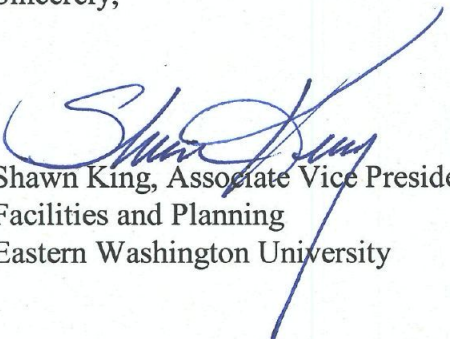
We intend to prepare the CRA Phase 1 Scoping document and look forward to moving into the CRA contract phase as soon as possible.

Drilling and Testing

Our first pair of extraction and injection wells will be constructed within the same quarter-quarter section as our existing wells which are authorized by groundwater certificates 7218-A, G3-25018, and G3-27882. We understand that your staff resources are very limited, so we intend to provide as much as possible of the documentation that you need on which to base your decision. The supplemental information that we will provide will include hydrogeological evaluations, drawdown and thermal-transport modeling, and aquifer test assessments.

If you have any questions related to the installation and testing of the wells, please contact Linton Wildrick at Pacific Groundwater Group, 360-570-8244.

Sincerely,



Shawn King, Associate Vice President
Facilities and Planning
Eastern Washington University

cc: Dan Matlock, Pacific Groundwater Group
Brad Bergler, L & S Engineering

Enclosure: Application for Water Right Permit



State of Washington
Application for a Water Right Permit

☐ SURFACE WATER ☒ GROUND WATER
☒ Permanent ☐ Temporary ☐ Short Term

RECEIVED

DEC 08 2010

DEPARTMENT OF ECOLOGY
NORTHWESTERN REGIONAL OFFICE

For Ecology Use
(Date Stamp)

10 DEC -6 10:23

Fee \$488.89
per 2,200 gpm

Follow the attached instructions. Attach additional sheets as necessary.

A NON-REFUNDABLE MINIMUM FEE OF \$50.00 PAYABLE TO
THE DEPARTMENT OF ECOLOGY MUST ACCOMPANY THIS APPLICATION.

Section 1. APPLICANT

Applicant/Business Name: Shawn King, AVP for Facilities & Planning Eastern Washington University	Phone No: (509) 359-6878	Other No:
Address: 526 5 th Street		
City: Cheney	State: WA	Zip: 99004
Email Address (optional):		

Contact Name (if different from above): Linton Wildrick	Phone No: (360) 570-8244	Other No:
Relationship to Applicant: consultant		
Address: 1627 Linwood Ave SW		
City: Tumwater	State: WA	Zip: 98512
Email Address (optional): linton@pgwg.com		

Section 2. STATEMENT OF INTENT

Briefly describe the purpose of your proposed project: Heat exchange for groundwater heat-pump system

Anticipated length of time to complete your project: Construction will begin within one year of permit issuance and completion of the HE system within 10 years

Water Use List all purposes for which water will be applied to a beneficial use and list quantity required for each.

Purpose(s) of Use	Rate (check one box only)	Acre-Feet per Year (AF/YR) (If known)	Period of Use (Continuously or Seasonal)
	<input type="checkbox"/> Cubic Feet per Second (CFS) <input checked="" type="checkbox"/> Gallons per Minute (GPM)		
Heat Exchange	2,200	non-consumptive	Continuously
TOTAL:			

Short Term/Temporary Water Use

Is this a request for a short term project (less than four months and non-recurring)? ☐ YES ☒ NO

Is this request for a temporary permit? ☐ YES ☒ NO

If yes to either question above, indicate the dates that the water will be needed:

FROM: ____/____/____ TO: ____/____/____

For Ecology Use	APPLICATION NO: <u>G3-30631</u>	SEPA: <u>Exempt</u> / Not Exempt
	Fee Paid: _____ Check No: _____	ECY Coding: 001-001-WR1-0285-000011
Date Returned _____	By _____	Priority Date _____ By _____ WRIA: <u>34</u>

Section 3. POINT OF DIVERSION OR WITHDRAWAL

Complete A or B, and C below

A.) If Surface Water Source	B.) If Ground Water Source
<input type="checkbox"/> Spring <input type="checkbox"/> Creek <input type="checkbox"/> River <input type="checkbox"/> Lake <input type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Well(s) <input type="checkbox"/> Other: _____
Source Name: _____	Well diameter & depth: <u>400-800 feet (Grande Ronde aquifer)</u>
Tributary to: _____	Number of proposed points of withdrawal: <u>Multiple extraction and injection wells</u>
Number of proposed diversion points: _____	Do you have an existing well? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
Do you have an existing diversion? <input type="checkbox"/> YES <input type="checkbox"/> NO	If available, attach Water Well Report and pump test.
	Well Tag ID No. _____

C.) Point of Diversion/Withdrawal – Legal Description

Parcel No.	¼	¼	Section	Township	Range	County
		SE	11	23 N	41 E	Spokane
Lot(s)	Block(s)		Subdivision			
If known, enter the distances in feet from the point of diversion or withdrawal to the nearest section corner: _____ Feet (<input type="checkbox"/> North/ <input type="checkbox"/> South) and _____ feet (<input type="checkbox"/> East/ <input type="checkbox"/> West) from the (<input type="checkbox"/> NW <input type="checkbox"/> SW <input type="checkbox"/> NE <input type="checkbox"/> SE <input type="checkbox"/> _____) corner of Section_____.						
Parcel No.	¼	¼	Section	Township	Range	County
		SW	12	23 N	41 E	Spokane
Lot(s)	Block(s)		Subdivision			
If known, enter the distances in feet from the point of diversion or withdrawal to the nearest section corner: _____ feet (<input type="checkbox"/> North/ <input type="checkbox"/> South) and _____ feet (<input type="checkbox"/> East/ <input type="checkbox"/> West) from the (<input type="checkbox"/> NW <input type="checkbox"/> SW <input type="checkbox"/> NE <input type="checkbox"/> SE <input type="checkbox"/> _____) corner of Section_____.						

NOTE: If more than two points of diversion/withdrawal attach additional information on a separate sheet of paper.

Do you own the land on which the proposed point of diversion/withdrawal is located? ☒ YES ☐ NO

If no, do you have legal authority to make this application for use of another's land? ☐ YES ☐ NO

Provide the owner name(s), address, and phone number: _____

Section 4. PLACE OF USE

Attach a copy of the legal description of the property (on which the water will be used) taken from a real estate contract, property deed or title insurance policy, or copy it carefully in the space below.

Area served by the Eastern Washington University water system						
¼	¼	Section	Twp.	Range	County	Parcel No.

Do you own all the lands on which the proposed place of use is located? ☒ YES ☐ NO.

If no, do you have legal authority to make this application for use of another's land? ☒ YES ☐ NO

Provide owner name(s), address, and phone number: _____

Are there any other water rights or claims associated with this property or water system? ☒ YES ☐ NO

If yes, provide the water right and/or claim numbers: 7218-A, G3-25018, and G3-27882

Attach a map of your project showing the point of diversion/withdrawal and place of use. If platted property, be sure to include a complete copy of the plat map.

Section 5. WATER SYSTEM DESCRIPTION

Describe your proposed water system (include type and size of devices used to divert or withdraw water from source): The intent of this application is to obtain groundwater rights for a large-scale groundwater heat pump system to be used for heating and cooling. The system will include 4 to 8 extraction wells and approximately the same number of injection wells. The well locations have not been selected. The project will be built in stages and the feasibility is still being assessed, so it is not possible to select well locations as yet. Water use will be non-consumptive, with all water being returned to same aquifer within the confines of the 1/4-square mile subdivision.

Section 6. DOMESTIC WATER SUPPLY SYSTEM INFORMATION

Complete A or B, and C below

A.) Domestic Water Systems only	B.) Municipal Water Systems only <i>(defined under RCW 90.03.015)</i>
Projected number of connections to be served: <u>n/a</u>	Present population to be served water: _____
Type of connections: _____ <i>(e.g., home, recreational cabin)</i>	Estimate future population to be served: _____ (20 year projection)
C.) Water System Planning	
Do you have a Water System Plan approved by the Washington State Department of Health, Drinking Water Division? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
If yes, date plan was approved ____/____/____ Water System Number: <u>21900</u>	
Name of water system: <u>Eastern Washington University</u>	
Are you within the service area of an existing water system? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
If yes, explain why you are unable to connect to the system: <u>Domestic water is provided by this system.</u>	

Section 7. IRRIGATION/STOCKWATER/OTHER FARM USES

Irrigation

Total number of acres requested to be irrigated under this application = _____ ACRES

NOTE: Outline the area to be irrigated on your attached map.

Stockwater

List number and kind of stock: _____

Is the proposed project for a dairy farm? ☐ YES ☐ NO

Other Proposed Farm Uses

Describe all proposed uses: _____

Family Farm Water Act (RCW 90.66):

Calculate the acreage in which you have a controlling interest, including only:

- Acreage irrigated under water rights acquired after December 8, 1977,
- Acreage proposed to be irrigated under this application, and
- Acreage proposed to be irrigated under other pending application(s).

Is the combined acreage under existing rights greater than 6000 acres? ☐ YES ☐ NO

Do you have a controlling interest in a Family Farm Development Permit? ☐ YES ☐ NO

If yes, enter Permit No: _____

Section 8. OTHER WATER USES

Hydropower

Indicate total feet of head _____ and proposed capacity in kilowatts: _____

Describe works: _____

Indicate all uses to which power is to be applied: _____

FERC License No: _____

Mining/Industrial Use

Describe use, method of supplying and utilizing water: _____

Other Use

Section 9. WATER STORAGE

Will you be using a dam, dike, or other structure to retain or store water? ☐ YES ☒ NO

Are you proposing to store more than 10 acre-feet of water? ☐ YES ☒ NO

Will the water depth be 10 feet or more? ☐ YES ☐ NO

If you answered yes to any of the above questions, please describe: _____

NOTE: If you will be storing 10 acre-feet or more of water and/or if the water depth will be 10 feet or more at the deepest point and some portion of the storage will be above grade, you must also complete an Application for Permit to Construct a Reservoir and a Dam Construction Permit and Application.

Section 10. DRIVING DIRECTIONS

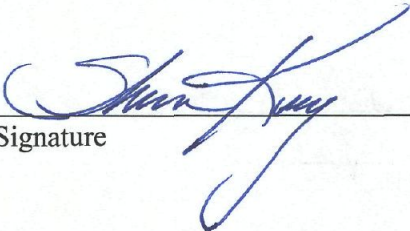
Provide detailed driving directions to the project site: From Spokane, go north on N. Lincoln Street towards W. Main Ave. Turn left on W. Main and then left onto N. Monroe Street. Take a right onto Freeway Ave. N., and Merge onto I-90 W/US-395 S via the ramp on the LEFT. Take the WA-904 W exit, EXIT 270, toward FOUR LAKES/CHENEY. Stay STRAIGHT to go onto WA-904/S SR 904 HWY/LT COL MICHAEL ANDERSON MEMORIAL HWY. Continue to follow WA-904/LT COL MICHAEL ANDERSON MEMORIAL HWY. Turn RIGHT onto COLLEGE AVE. and then RIGHT onto 5TH ST.

Site Address: 526 5th Street

Section 11. REQUIRED SIGNATURES

I certify that the information provided in this application is true and accurate to the best of my knowledge. I understand that in order to process my application, I grant staff from the Department of Ecology access to the site for inspection and monitoring purposes. Even though the employees of the Department of Ecology may have assisted me in the preparation of the above application, all responsibility for the accuracy of the information rests with me, the applicant.

Shawn King, AVP Facilities & Planning
Print Name
(Applicant or authorized representative)



Signature

11/3/10

Date

Eastern Washington University
Print Name
(Landowner of Place of Use)

Signature

Date

Print Name
(Landowner of Place of Use)

Signature

Date

Print Name
(Landowner of Place of Use)

Signature

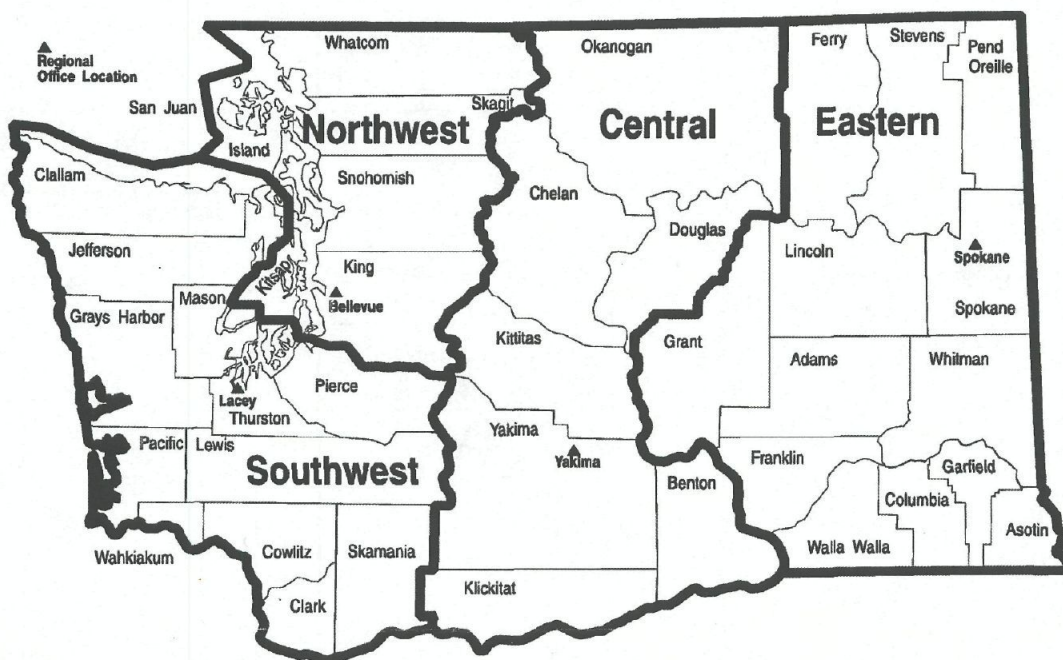
Date

Submit your application to: DEPARTMENT OF ECOLOGY
CASHIERING SECTION
PO BOX 5128 47611
LACEY WA 98509-5128
OLYMPIA, 98504-7611

Please check the region in which your proposed project is located.

☐ Southwest ☐ Northwest ☐ Central ☒ Eastern

Below is a map of the State of Washington, with outlines of the four Ecology regional offices. If you have questions about your application, contact the Water Resources program at the regional office in which your project is located.



Southwest Regional Office: 360-407-6300

Northwest Regional Office: 425-649-7000

Central Regional Office: 509-575-2490

Eastern Regional Office: 509-329-3400

If you need this document in an alternate format, please call the Water Resources Program at 360-407-6600. Persons with hearing loss can call 711 for Washington Relay Service. Persons with a speech disability can call 877-833-6341

Continued POW:

C.) Point of Diversion/Withdrawal – Legal Description						
Parcel No.	¼	¼	Section	Township	Range	County
		NW	13	23 N	41 E	Spokane
Lot(s)	Block(s)		Subdivision			
If known, enter the distances in feet from the point of diversion or withdrawal to the nearest section corner: _____ Feet (<input type="checkbox"/> North/ <input type="checkbox"/> South) and _____ feet (<input type="checkbox"/> East/ <input type="checkbox"/> West) from the (<input type="checkbox"/> NW <input type="checkbox"/> SW <input type="checkbox"/> NE <input type="checkbox"/> SE <input type="checkbox"/> _____) corner of Section _____.						
Parcel No.	¼	¼	Section	Township	Range	County
		NE	14	23 N	41E	Spokane
Lot(s)	Block(s)		Subdivision			
If known, enter the distances in feet from the point of diversion or withdrawal to the nearest section corner: _____ feet (<input type="checkbox"/> North/ <input type="checkbox"/> South) and _____ feet (<input type="checkbox"/> East/ <input type="checkbox"/> West) from the (<input type="checkbox"/> NW <input type="checkbox"/> SW <input type="checkbox"/> NE <input type="checkbox"/> SE <input type="checkbox"/> _____) corner of Section _____.						